

**A NOTE ON THE IDENTITY OF *COLOBOSTRELLA BIANGULATA*
DE MEIJERE (DIPTERA: TEPHRITIDAE: PHYTALMIINAE)**

DAVID L. HANCOCK

8/3 McPherson Close, Edge Hill, Cairns, Qld 4870

Abstract

Colobostrella biangulata de Meijere, allegedly from Sumatra, is placed in the new combination *Paraphasca biangulata* (de Meijere) and compared with its only known congener, *P. taenifera* Hardy from Papua New Guinea.

Introduction

Colobostrella biangulata de Meijere, a species of tephritid fruit fly currently included in genus *Sophira* Walker in the *Sophira* complex of genera in Tribe Acanthonevrini (Norrbom *et al.* 1999), was described from a single female from Gunung [Mount] Talamau in Sumatra (de Meijere 1924). It was transferred to the combination *Sophira* (*Parasophira*) *biangulata* by Hardy (1980), who noted the atypical presence of distinct secondary scutellar setae (*i.e.* three distinct pairs, the middle pair shorter than the others); in *Sophira* and related genera the secondary scutellar setae are very weak or absent.

However, a review of the *Sophira* complex of genera, currently under way, has shown that this species clearly belongs in *Paraphasca* Hardy, a genus referred to Tribe Phascini (Korneyev 1999) and known elsewhere only from a single species found only in Papua New Guinea (Hardy 1986). The listed characters of *C. biangulata*, including the concave face, pair of dark upper occipital vittae, wing pattern (very similar to that of the genotype *P. taenifera* Hardy), short stigma (about half length of cell c and ending well before the line of the R-M crossvein), distinctly arcuate last portion of vein M and secondary scutellar setae 2/5 length of apicals, clearly place it in this genus. It must be assumed that the distinct costal seta above the apex of vein Sc and the intrapostalar setae on the scutum (both characteristics of the tribe Phascini) are abraded on the type (and only known specimen) or are secondarily lacking. It should also be noted that a dark medial vitta on the scutum, present in *C. biangulata*, is only rarely observed within the *Sophira* complex and not within *Sophira* or closely allied genera.

Paraphasca biangulata (de Meijere), **comb. n.** differs from *P. taenifera* Hardy in characters noted in the following key. The transverse wing band from the costa in cell r₁, across the R-M crossvein, is entire in *P. biangulata* (see de Meijere 1924, Hardy 1980) and in a female of *P. taenifera* from Kerowagi, Chimbu Province recorded and illustrated by Hancock and Drew (2003), or interrupted below the middle of cell dm in the type series of *P. taenifera* (10 specimens, of both sexes, including a female from Kerowagi) (see Hardy 1986). Despite the wing pattern variation seen in *P. taenifera*, *P. biangulata* has a yellowish rather than hyaline wing base and certainly represents a different species.

Key to species of *Paraphasca*

- 1 Scutum with a black band along posterior margin; wing with transverse brown band from stigma continuous to below cell bcu (Papua New Guinea) *P. taenifera* Hardy
- Scutum with 3 longitudinal black vittae; wing with transverse brown band from stigma medially interrupted, leaving an isolated patch at base of cell cu_1 (Sumatra ?) *P. biangulata* (de Meijere)

Discussion

The presence of *Paraphasca biangulata* in Sumatra is anomalous. Tribe Phascini is known otherwise only from the Papuan Region and appears confined to the island of New Guinea (Hancock and Drew 2003). Unless further material comes to light, it must be surmised that the species either (a), was artificially introduced to Sumatra prior to June 1917, when Edward Jacobson collected it (de Meijere 1924), or (b), that it is a somehow mislabelled specimen from elsewhere, possibly the Indonesian Province of West Papua.

Tribe Phascini contains the following six genera (Hancock and Drew 2003): *Diarrhagemoides* Malloch (1 sp.), *Othniocera* Hardy (3 spp), *Paraphasca* Hardy (2 spp), *Phasca* Hering (6 spp), *Stigmatomyia* Hardy (1 sp.) and *Xenosiphira* Hardy (2 spp). For species descriptions and illustrations see Hardy (1980, 1986). Nothing is known of their biology; although specimens of most genera, including *Paraphasca*, have been collected in bamboo thickets and this host suspected (Hardy 1986), others have been collected on *Nothofagus*, *Cordyline* and *Musa* (wild bananas) or in montane moss forest (Hardy 1986) and there is currently no evidence of breeding in bamboo. It is possible that they breed beneath the bark of fallen or damaged trees.

References

- de MEIJERE, J.C.H. 1924. Studien über südostasiatische Dipteren XV, Dritter Beitrag zur Kenntnis der sumatranischen Dipteren. *Tijdschrift voor Entomologie* 67(Supplement): 1-64.
- HANCOCK, D.L. and DREW, R.A.I. 2003. New species and records of Phytalmiinae (Diptera: Tephritidae) from Australia and the south Pacific. *Australian Entomologist* 30(2): 65-78.
- HARDY, D.E. 1980. The *Sophira* group of fruit fly genera (Diptera: Tephritidae: Acanthonevrini). *Pacific Insects* 22: 123-161.
- HARDY, D.E. 1986. Fruit flies of the subtribe Acanthonevrina of Indonesia, New Guinea, and the Bismarck and Solomon Islands (Diptera: Tephritidae: Trypetinae: Acanthonevrini). *Pacific Insects Monograph* 42: 1-191.
- KORNEYEV, V.A. 1999. Phylogenetic relationships among higher groups of Tephritidae. Pp 73-113, in: Aluja, M. and Norrbom, A.L. (eds), *Fruit flies (Tephritidae): phylogeny and evolution of behavior*. CRC Press, Boca Raton; xviii + 944 pp.
- NORRBOM, A.L., CARROLL, L.E., THOMPSON, F.C., WHITE, I.M. and FREIDBERG, A. 1999. Systematic database of names. Pp 65-251, in: Thompson, F.C. (ed.), *Fruit fly expert identification system and systematic information database*. *Myia* 9: ix + 524 pp.